Data Validation Checklist
Inorganic Analyses

Project:	35TH Avenue Superfund Site	Project No:	15268508.20000
Laboratory:	TestAmerica - Savannah, GA	Job ID.:	680-87545-6
Method:	SW-846 6010C and 7471B	Associated Samples:	Refer to **Attachment A** (Sample Summary)
Matrix:	Soil	Date(s) Collected:	02/14/2013 and 02/15/2013
Reviewer:	Jane Lindsey	Date:	03/06/2013
Concurrence[1]:	Carol Lovett/Martha Meyers-Lee	Date:	04/01/2013

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample preservation requirements met? If pH of aqueous sample >2 and was not adjusted by laboratory prior to analysis, J- flag positive results and R- flag non-detect results.			✓		
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil/sediment samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Have any technical holding times, determined from date of collection to date of analysis, been exceeded? (Hg: ≤28 days, other metals: ≤6 months). If not, then J- flag positive results and R- flag non-detect aqueous results.		✓			
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?		✓		The MDL (0.59 mg/Kg) for arsenic is greater than the Resident Soil RSL (0.39 mg/Kg). A RSL does not exist for total chromium; however, the total chromium MDL (0.5 mg/Kg) is greater than the hexavalent chromium Resident Soil RSL (0.29 mg/Kg).	
8. Were method blank (MB) prepared at the appropriate frequency (one per 20 samples, batch, matrix, and level)?	✓				
9. Was a calibration blank (ICB/CCB) analyzed at the beginning, after every 10th sample, and at the end of each analytical run?	✓				
10. Were target analytes detected in the method and/or calibration blanks?		✓		Target analytes were not detected in any method blank; calibration blanks were not evaluated.	

[1] Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
11. Were target analytes reported in equipment/rinsate blanks analyses above the DL?		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank (021213-RB-Shovel (680-87447-31)) was collected for the week of February 11, 2013. Target analytes were not detected during the EPA Methods 200.7 and 245.1 analyses of the rinsate blank that was collected on February 12, 2013 and all results were reported Job ID 680-87447-3.	
12. Were contaminants detected in samples below the blank contamination action level? o If blank result > RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and ≤10x blank result , as J+ positive results o If blank result ≤RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and ≤10x blank result , as J+ positive results			✓	Method and rinsate blank contamination does not exist.	
13. Are there negative laboratory blank results with the absolute value ≤RL? If yes, then flag positive and non-detect sample results that are < 10x absolute blank value as J- and UJ, respectively.		✓			
14. Was a field duplicate analyzed?		✓			
15. Was precision deemed acceptable as defined by the project plans?			✓		
16. Were initial and continuing calibration standards analyzed at the lab/project-specified frequency for each instrument? o 6010C: • ICAL: Blank and one standard • ICV initially, and CCV every 10th sample and at the end of the analytical run • Lower Limit of Quantitation Check Sample (CRI) to be analyzed after establishing lower laboratory reporting limits and as needed o 7471B: • ICAL: Blank and five standards • ICV initially, and CCV every 10th sample and at the end of the analytical run	✓			• 6010C: 02/21/2013 and 02/22/2013. One blank and one standard initially per analytical batch. ICV initially, and CCV every 10 samples and at end of run. CRI after initial calibration blank analysis. • 7471A: 02/22/2013. 6-Point ICAL per analytical batch. ICV initially, CCV every 10 samples and at end of run. CRI after initial calibration blank analysis.	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
17. Were these results within lab/project specifications? o 6010C • ICV/CCV (Criteria: 90-110%R): ▪ If %R <75, then J- flag positive results and R-flag non-detects ▪ If 75-89%R, then J- flag positive results and UJ flag non-detects ▪ If 111-125%R, then J flag positive results ▪ If >125%R, then J+ flag positive results ▪ If >160%R, then R flag positive results • CRI (Method: 70-130%R, Laboratory: 50-150%R; Project: 50-150%R for Sb, Pb, and Tl, and 70-130%R for all other analytes): ▪ If CRI %R <50 (<30% for Sb, Pb, TL), then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69% (30-49% for Sb, Pb, TL), then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180% (>150%, but ≤200% for Sb, Pb, TL), then J+ flag positive results <2x RL ▪ If CRI %R >180% (>200% for Sb, Pb, TL), then R flag positive results o 7471B • ICV/CCV (Criteria: 80-120%R): ▪ If correlation coefficients <0.995, then J and UJ flag positive and non-detect results. ▪ If %R <65, then J- flag positive results and R-flag non-detects ▪ If 65-79%R, then J- flag positive results and UJ flag non-detects ▪ If 121-135%R, then J flag positive results ▪ If >135%R, then J+ flag positive results ▪ If >170%R, then R flag positive results • CRI (Method: Not required, Laboratory: 50-150%R, Project: 70-130%R): ▪ If CRI %R <50, then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69%, then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180%, then J+ flag positive results <2x RL ▪ If CRI %R >180%, then R flag positive result	✓			Mercury correlation coefficient for ICAL of 02/22/2013 is 0.9997481 (page 305).	
18. Was the interference check sample (ICS) analyzed at the beginning of each ICP analytical run?	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
19. Are ICS recoveries within 80-120% of the true value? If not, qualify data as follows when native Al, Fe, Ca, and Mg sample concentrations are equal to or greater than the ICS spiking level: o If >120%R (or >true value plus 2x CRQL), J+ flag positive results o If 50-79%R (or less than true value – 2x the CRQL), J- flag positive results and UJ flag non-detects o If <50%R, J- flag positive results and R-flag non-detects	✓				
20. Was a LCS analyzed for each preparation batch (one per 20 samples per matrix and level)?	✓				
21. Did LCS recoveries meet method/laboratory/project (80-120%R) specifications? o Soil: • LCS result > Upper control limit (UCL): J+ flag positive results • LCS result < Lower control limit (LCL): J- flag positive results and UJ flag non-detects o Aqueous: • If <50%R, then J- and R flag positive and ND results, respectively • If 50-LCL%R, J- and UJ flag positive and ND results, respectively • >UCL: J+ Flag positive results • >150%R: R Flag results	✓				
22. Was the RPD between LCS and LCSD results within method/laboratory /project control limits (≤20%RPD)? If not, J and UJ flag positive and non-detect results, respectively			✓	LCS only	
23. Was a Matrix Spike (MS) and Matrix Spike Duplicate (MSD) analyzed once per preparation batch?	✓				
24. Is the MS and MSD parent sample a project-specific sample?	✓			• 6010C, Prep Batch 266715: 680-87545-1 (CV0240A-CS), MS/MSD • 7471B, Prep Batch 266804: 680-87545-1 (CV0240A-CS), MS/MSD	
25. Was a post-digestion spike (PDS) analysis conducted when MS and/or MSD results did not meet control limits (Note: PDS is not required for silver)?	✓			6010C: 680-87545-1 (CV0240A-CS)	
26. For all analytes with sample concentration < 4 x spike concentration, are spike recoveries within method (6010C: 75-125%R MS/MSD and 80-120%R PDS; 7471B: 80-120%R		✓		CV0240A-CS (680-87545-1): • Arsenic MS and MSD @ 131 and 134%R (75-125), respectively. PDS @ 94%R. Result was	J,UJ

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
MS/MSD and PDS not required), laboratory (MS, MSD, and PDS: 75-125%R), and project (as noted below) specifications? *Only QC results for project samples that are reported under this Job ID are evaluated.* If not, ○ 6010C: • If MS %R <30 and PDS %R <75, then J- and R Flag positive and ND results, respectively • If MS %R <30 and PDS %R >75, then J flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R <75, then J- flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R ≥75, then J flag positive and UJ flag non-detect results • If MS, MSD, and PDS %R >125, J+ flag positive results • If MS and MSD %R >125 and PDS %R ≤125, then J flag positive results • If MS and MSD %R <30 and no PDS, then J- flag positive and R-flag non-detect results • If MS and MSD %R 30-74 and no PDS, then J- and UJ flag positive and non-detect results, respectively • If MS and MSD %R >125 and no PDS, then J+ flag positive results ○ 7471B: • If MS %R <30, then J- and R Flag positive and ND results, respectively • If MS and MSD %R 30-74, then J- flag positive and UJ flag non-detect results • If MS and MSD %R >125, then J+ flag positive results				qualified J. • Barium MS and MSD @ 389 and 43%R (75-125), respectively. The native sample concentration is greater than 4x the MS/MSD spiking level; therefore, an evaluation of interference is not possible based on MS/MSD results. PDS recovery met acceptance criteria. • Chromium MSD @ 192%R (75-125). Qualification of data is not required, because the MS %R (98) is within acceptance criteria. In addition, PDS recovery met acceptance criteria. • Lead MS and MSD @ 2144 and -1536%R (75-125), respectively. The native sample concentration is greater than 4x the MS/MSD/PDS spiking level; therefore, an evaluation of interference is not possible. • Selenium MS and MSD @ 60 and 52%R (75-125), respectively. PDS @ 88%R. Result was qualified UJ. • Mercury MS and MSD @ 90 and 325%R (80-120), respectively. The native sample concentration is greater than 4x the MS/MSD spiking level; therefore, an evaluation of interference is not possible.	
27. Were laboratory/project (≤20%RPD) criteria met for precision during the MS and MSD analysis? *Only QC results for project samples that are reported under this Job ID are evaluated.* ○ If RPD >20%, J and UJ flag positive and non-detect results.		✓		CV0240A-CS (680-87545-1): • Lead MS/MSD RPD @ 30% (≤20). The native sample concentration is greater than 4x the MS/MSD spiking level; therefore, an evaluation of interference is not possible. • Mercury MS/MSD RPD @ 30% (≤20). The native sample concentration is greater than 4x the MS/MSD spiking level; therefore, an evaluation of interference is not possible.	
28. Was a serial dilution conducted for 6010C?	✓				
29. Is the serial dilution parent sample a project-specific sample?	✓			6010C: 680-87545-1 (CV0240A-CS)	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
30. Is the percent difference between the serially diluted result and undiluted result less 10% (for those analytes with native concentrations greater than 50x the DL)? *Only QC results for project samples that are reported under this Job ID are evaluated.* o If %D >10, J and UJ flag positive and non-detect results, respectively.	✓				
31. Was a laboratory duplicate analyzed?		✓			
32. Was the lab duplicate analysis conducted on a project-specific sample?			✓		
33. Were criteria for laboratory/project precision met? *Only QC results for project samples that are reported under this Job ID are evaluated.* o If RPD values >20% (35% for soil/sediment) or absolute difference > RL (2x RL for soil/sediment), then J and UJ flag positive and non-detect results, respectively			✓		
34. Were lab comments included in report? If yes, summarize contents or attach a copy of the narrative.	✓			Refer to **Attachment B** (Case Narrative)	

Comments: The data validation was conducted in accordance with the *Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1* (OTIE, October 2012). The data review process was modeled after the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Data Review* (EPA 540-R-04-004, October 2004). Sample results have been qualified based on the results of the data review process (**Attachment C**). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment

DV Flag Definitions:

J- The result is an estimated quantity, but the result may be biased low.
J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ The result is an estimated quantity, but the result may be biased high.
R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
UJ The analyte was analyzed for, but was not detected. The reported limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A

SAMPLE SUMMARY

Sample Summary

Client: Oneida Total Integrated Enterprises LLC
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-87545-6
SDG: 68087545-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-87545-1	CV0240A-CS	Solid	02/14/13 08:46	02/16/13 09:03
680-87545-2	CV0240B-CS	Solid	02/14/13 08:58	02/16/13 09:03
680-87545-4	FM0161F-CS	Solid	02/14/13 08:47	02/16/13 09:03
680-87545-34	FM0161W-CS	Solid	02/14/13 13:00	02/16/13 09:03
680-87545-44	CV0109B-CS-SP	Solid	02/14/13 13:38	02/16/13 09:03
680-87545-55	FM0161OO-CS	Solid	02/14/13 15:40	02/16/13 09:03
680-87545-76	CV0240A-CS (sieve)	Solid	02/14/13 08:46	02/16/13 09:03
680-87545-77	CV0240B-CS (sieve)	Solid	02/14/13 08:58	02/16/13 09:03
680-87545-78	CV0109B-CS-SP (seive)	Solid	02/14/13 13:38	02/16/13 09:03
680-87545-80	CV0367B-CS-SP	Solid	02/15/13 08:27	02/16/13 09:03
680-87545-86	FM0161FFF-CS	Solid	02/15/13 09:12	02/16/13 09:03

ATTACHMENT B

CASE NARRATIVE

Job ID: 680-87545-6

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Oneida Total Integrated Enterprises LLC

Project: 35th Avenue Superfund Site

Report Number: 680-87545-6

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 02/16/2013; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.8º C and 3.4º C.

SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)

Samples FM0161F-CS (680-87545-4), FM0161W-CS (680-87545-34) and FM0161OO-CS (680-87545-55) were analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 02/18/2013 and analyzed on 02/23/2013.

The following analytes have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: Famphur, 1,4-Napthaquinone, Methane sulfonate, Benzaldehyde, 1-naphthylamine, 2-naphthylamine, p-Dimethylamino azobenzene, p-phenylenediamine, a,a-dimethylphenethylamine, Methapyriline, 2-picoline (2-methylpyridine), 3,3'-dimethylbenzidine, 3,3'-dichlorobenzidine, Benzidine, Benzaldehyde, Benzoic acid, Dinoseb, Hexachlorophene, Hexachlorocyclopentadiene, o,o,o-triethylphosphoro-thioate. These analytes may have a %D >60% if the average %D of all the analytes in the continuing calibration verification (CCV) or initial calibration verification (ICV) is 30%.

The minimum response factor (RF) criteria for the initial calibration (ICAL) analyzed in batch 267279 was outside criteria for the following analyte(s): 2,6-dinitrotoluene. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

The initial calibration verification (ICV) analyzed in batch 267279 was outside method criteria for the following analyte(s): benzoic acid, benzidine, terphenyl-d14, benzaldehyde and atrazine. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 8 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 266624 had 1 analytes outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Atrazine recovered outside the recovery criteria for LCS 680-266624/7-A.

Several analytes recovered outside the recovery criteria for the MS/MSD of sample FM0161W-CS (680-87545-34) in batch 680-267279.

No other difficulties were encountered during the semivolatiles analyses.

Job ID: 680-87545-6 (Continued)

Laboratory: TestAmerica Savannah (Continued)

All other quality control parameters were within the acceptance limits.

METALS (ICP)

Samples CV0240A-CS (680-87545-1), CV0240B-CS (680-87545-2), CV0109B-CS-SP (680-87545-44), CV0240A-CS (sieve) (680-87545-76), CV0240B-CS (sieve) (680-87545-77), CV0109B-CS-SP (seive) (680-87545-78), CV0367B-CS-SP (680-87545-80) and FM0161FFF-CS (680-87545-86) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 02/19/2013 and analyzed on 02/21/2013 and 02/22/2013.

Sample CV0109B-CS-SP (seive) (680-87545-78)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Several anaytes recovered outside the recovery criteria for the MS/MSD of sample CV0240A-CSMS (680-87545-1) in batch 680-267109. Also, Lead exceeded the rpd limit.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples CV0240A-CS (680-87545-1), CV0240B-CS (680-87545-2), CV0109B-CS-SP (680-87545-44), CV0240A-CS (sieve) (680-87545-76), CV0240B-CS (sieve) (680-87545-77), CV0109B-CS-SP (seive) (680-87545-78), CV0367B-CS-SP (680-87545-80) and FM0161FFF-CS (680-87545-86) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 02/20/2013 and analyzed on 02/22/2013.

Samples CV0240A-CS (680-87545-1)[5X], CV0240B-CS (680-87545-2)[5X], CV0240A-CS (sieve) (680-87545-76)[5X], CV0240B-CS (sieve) (680-87545-77)[5X] and CV0367B-CS-SP (680-87545-80)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Mercury recovered outside the recovery criteria high for the MSD of sample CV0240A-CSMSD (680-87545-1) in batch 680-267354. Mercury exceeded the rpd limit.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

ATTACHMENT C

QUALIFIED SAMPLE RESULTS

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0240A-CS
Lab Sample ID: 680-87545-1
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/14/2013 08:46
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 90.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	23	2.1	0.62	mg/Kg		J	1	6010C
7440-39-3	Barium	320	1.1	0.32	mg/Kg			1	6010C
7440-43-9	Cadmium	2.3	0.53	0.11	mg/Kg			1	6010C
7440-47-3	Chromium	34	1.1	0.53	mg/Kg			1	6010C
7439-92-1	Lead	610	1.1	0.56	mg/Kg			1	6010C
7782-49-2	Selenium	2.6	2.6	1.1	mg/Kg	J	UJ	1	6010C
7440-22-4	Silver	0.54	1.1	0.10	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.57	0.095	0.039	mg/Kg			5	7471B

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTIE, October 2012)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0240B-CS
Lab Sample ID: 680-87545-2
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/14/2013 08:58
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 92.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	23	2.1	0.61	mg/Kg			1	6010C
7440-39-3	Barium	400	1.0	0.31	mg/Kg			1	6010C
7440-43-9	Cadmium	2.6	0.51	0.10	mg/Kg			1	6010C
7440-47-3	Chromium	32	1.0	0.51	mg/Kg			1	6010C
7439-92-1	Lead	590	1.0	0.54	mg/Kg			1	6010C
7782-49-2	Selenium	2.6	2.6	1.0	mg/Kg	U		1	6010C
7440-22-4	Silver	0.97	1.0	0.099	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.48	0.093	0.038	mg/Kg			5	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0109B-CS-SP
Lab Sample ID: 680-87545-44
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/14/2013 13:38
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 74.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	16	2.3	0.68	mg/Kg			1	6010C
7440-39-3	Barium	290	1.1	0.34	mg/Kg			1	6010C
7440-43-9	Cadmium	3.7	0.57	0.11	mg/Kg			1	6010C
7440-47-3	Chromium	47	1.1	0.57	mg/Kg			1	6010C
7439-92-1	Lead	250	1.1	0.61	mg/Kg			1	6010C
7782-49-2	Selenium	2.9	2.9	1.1	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7439-97-6	Mercury	0.20	0.023	0.0095	mg/Kg			1	7471B

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTIE, October 2012)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0240A-CS (sieve) Lab Sample ID: 680-87545-76

Lab Name: TestAmerica Savannah Job No.: 680-87545-6

SDG ID.: 68087545-6

Matrix: Solid Date Sampled: 02/14/2013 08:46

Reporting Basis: DRY Date Received: 02/16/2013 09:03

% Solids: 84.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	31	2.1	0.62	mg/Kg			1	6010C
7440-39-3	Barium	450	1.1	0.32	mg/Kg			1	6010C
7440-43-9	Cadmium	3.5	0.53	0.11	mg/Kg			1	6010C
7440-47-3	Chromium	43	1.1	0.53	mg/Kg			1	6010C
7439-92-1	Lead	840	1.1	0.56	mg/Kg			1	6010C
7782-49-2	Selenium	2.6	2.6	1.1	mg/Kg	U		1	6010C
7440-22-4	Silver	0.60	1.1	0.10	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.72	0.11	0.046	mg/Kg			5	7471B

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTIE, October 2012)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0240B-CS (sieve) Lab Sample ID: 680-87545-77

Lab Name: TestAmerica Savannah Job No.: 680-87545-6

SDG ID.: 68087545-6

Matrix: Solid Date Sampled: 02/14/2013 08:58

Reporting Basis: DRY Date Received: 02/16/2013 09:03

% Solids: 84.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	34	2.3	0.67	mg/Kg			1	6010C
7440-39-3	Barium	570	1.1	0.34	mg/Kg			1	6010C
7440-43-9	Cadmium	4.2	0.57	0.11	mg/Kg			1	6010C
7440-47-3	Chromium	51	1.1	0.57	mg/Kg			1	6010C
7439-92-1	Lead	1000	1.1	0.61	mg/Kg			1	6010C
7782-49-2	Selenium	2.9	2.9	1.1	mg/Kg	U		1	6010C
7440-22-4	Silver	1.7	1.1	0.11	mg/Kg			1	6010C
7439-97-6	Mercury	1.3	0.10	0.042	mg/Kg			5	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0109B-CS-SP (seive)
Lab Sample ID: 680-87545-78
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/14/2013 13:38
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	17	2.0	0.58	mg/Kg			1	6010C
7440-39-3	Barium	290	0.98	0.29	mg/Kg			1	6010C
7440-43-9	Cadmium	4.3	0.49	0.098	mg/Kg			1	6010C
7440-47-3	Chromium	52	0.98	0.49	mg/Kg			1	6010C
7439-92-1	Lead	10000	9.8	5.2	mg/Kg			10	6010C
7782-49-2	Selenium	2.4	2.4	0.98	mg/Kg	U		1	6010C
7440-22-4	Silver	0.40	0.98	0.094	mg/Kg	J		1	6010C
7439-97-6	Mercury	0.18	0.021	0.0087	mg/Kg			1	7471B

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTIE, October 2012)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CV0367B-CS-SP
Lab Sample ID: 680-87545-80
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/15/2013 08:27
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	3.3	2.0	0.58	mg/Kg			1	6010C
7440-39-3	Barium	120	0.99	0.30	mg/Kg			1	6010C
7440-43-9	Cadmium	0.98	0.49	0.099	mg/Kg			1	6010C
7440-47-3	Chromium	12	0.99	0.49	mg/Kg			1	6010C
7439-92-1	Lead	65	0.99	0.52	mg/Kg			1	6010C
7782-49-2	Selenium	2.5	2.5	0.99	mg/Kg	U		1	6010C
7440-22-4	Silver	0.99	0.99	0.095	mg/Kg	U		1	6010C
7439-97-6	Mercury	0.88	0.10	0.041	mg/Kg			5	7471B

Sample results have been qualified by URS in accordance with the Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1 (OTIE, October 2012)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FM0161FFF-CS
Lab Sample ID: 680-87545-86
Lab Name: TestAmerica Savannah
Job No.: 680-87545-6
SDG ID.: 68087545-6
Matrix: Solid
Date Sampled: 02/15/2013 09:12
Reporting Basis: DRY
Date Received: 02/16/2013 09:03
% Solids: 94.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	9.3	1.9	0.56	mg/Kg			1	6010C
7440-39-3	Barium	54	0.94	0.28	mg/Kg			1	6010C
7440-43-9	Cadmium	0.24	0.47	0.094	mg/Kg	J		1	6010C
7440-47-3	Chromium	17	0.94	0.47	mg/Kg			1	6010C
7439-92-1	Lead	82	0.94	0.50	mg/Kg			1	6010C
7782-49-2	Selenium	2.4	2.4	0.94	mg/Kg	U		1	6010C
7440-22-4	Silver	0.94	0.94	0.090	mg/Kg	U		1	6010C
7439-97-6	Mercury	0.048	0.020	0.0081	mg/Kg			1	7471B